

What is Claimed is:

1. A vascular prosthesis comprising:
a radially self-expanding distal anchor;
a helical section comprising a plurality of turns;

a stress-relieving articulation coupling the radially self-expanding anchor to the helical section.
2. The vascular prosthesis of claim 1, wherein the radially self-expanding section comprises a zig-zag configuration defining a plurality of apices.
3. The vascular prosthesis of claim 2 wherein each apex of the zig-zag configuration comprises a pair of adjacent sections coupled by a bend.
4. The vascular prosthesis of claim 3, wherein the bend comprises a substantially "C"-shaped semicircular configuration.
5. The vascular prosthesis of claim 2 wherein the stress-relieving articulation comprises a first connection member, the first connection member comprising a substantially straight portion coupled to a first apex of the zig-zag configuration by a first hinge.
6. The vascular prosthesis of claim 5 wherein the substantially straight portion of the first connection member defines a distal edge of a final turn of the helical section.

7. The vascular prosthesis of claim 5, wherein the first hinge comprises a substantially "C"-shaped semicircular configuration.

8. The vascular prosthesis of claim 5 wherein the stress-relieving articulation further comprises a second connection member, the second connection member comprising a substantially straight portion coupled to a second apex of the zig-zag configuration by a second hinge, the second apex disposed adjacent to the first apex.

9. The vascular prosthesis of claim 8, wherein the second hinge comprises a substantially "C"-shaped semicircular configuration.

10. The vascular prosthesis of claim 8 wherein a proximal end of the first connection member is coupled to a proximal end of the second connection member by a third hinge.

11. The vascular prosthesis of claim 10, wherein the third hinge comprises a substantially "C"-shaped semicircular configuration.

12. A vascular prosthesis comprising:
a radially self-expanding distal anchor having a plurality of cells defined by a pair of zig-zag configurations joined by axially-oriented struts;
a helical section comprising a plurality of turns;

a stress-relieving articulation interposed between at least one of the plurality of cells and the the helical section.

13. The vascular prosthesis of claim 12, wherein each one of the plurality of cells includes a proximal apex.

14. The vascular prosthesis of claim 13 wherein proximal apex comprises a bend having a substantially "C"-shaped semicircular configuration.

15. The vascular prosthesis of claim 13 wherein the stress-relieving articulation comprises a first connection member coupled to a first proximal apex by a first hinge.

16. The vascular prosthesis of claim 15 wherein the first connection member comprises a substantially straight strut.

17. The vascular prosthesis of claim 15 wherein the first connection member comprises a distal edge of a final turn of the helical section.

18. The vascular prosthesis of claim 15, wherein the first hinge comprises a substantially "C"-shaped semicircular configuration.

19. The vascular prosthesis of claim 15 wherein the stress-relieving articulation further comprises a second connection member coupled to a second

proximal apex by a second hinge, the second proximal apex disposed adjacent to the first proximal apex.

20. The vascular prosthesis of claim 19, wherein the second hinge comprises a substantially "C"-shaped semicircular configuration.

21. The vascular prosthesis of claim 19 wherein a proximal end of the first connection member is coupled to a proximal end of the second connection member by a third hinge.

22. The vascular prosthesis of claim 21, wherein the third hinge comprises a substantially "C"-shaped semicircular configuration.